Country Life

Buildings for Country Homes

The buildings for a country home should supply every convenience and comfort that may be provided. The house should be located, if possible, so as to obtain the best views. It is an unceasing pleasure to be able to look over an expanse of country that embraces a variety of landscape beauty and effect.

From spacious piazzas or from the different rooms in the house the view may be over sloping lawns and rolling pastures and meadows; it may extend in the distance as a mountain range where the blue outlines against the sky are a continual feast for the eye; with occasional purple colorings sweeping over its wooded sides at sunset on a clear June or October day.

The house may be so located as to take in a fine water view of river, lake or ocean, or it may be that of a quiet or gentle stream dropping down from a near elevation and in its course widening out into a broader stream running through a stretch of fertile farms.

The view may extend between larches, pines and cedars through beautiful vistas, embracing a delightful variety of scenes. There are many such possibilities, and all of them depend upon a careful study of the location of the house.

Quite frequently farms may be purchased which have upon them old houses that were substantially built many years ago, either of stone or of wood, and with a little repairing at a moderate outlay such houses will give comfort and convenience with surprisingly beautiful surroundings.

In the construction of new buildings native materials may often be used to excellent advantage, particularly when stone, gravel and sand are abundant. Concrete buildings will be used more in the future, as all kinds of wood building materials are steadily growing scarcer and higher in value.

Where stones are abundant, as they are in many sections, and gravel may be obtained along some creek or stream, the cheapest construction possible may be made of these materials. At Orchard Farm a barn was built of concrete twenty-five years ago, upon which no expenditure has since been required for either repairs or paint excepting a few doors and windows.

Studding was set as high as the walls were to be built. Inside of these, movable boxes, twenty inches deep, were filled and moved up daily as the concrete materials set. Where the foundation came in contact with the earth one part of Rosendale cement was used to three parts of coarse gravel. Above the earth line the following mixture was used: One barrel of any good building lime, slaked, and twelve barrels of creek gravel, to which was added one barrel of Rosendale cement.

All kinds of stones of all sizes that would go in the boxes were put in, and the concrete mixture of lime, gravel and cement was poured over and through them. The material would set and harden over night sufficiently to make it possible to move up the boxes and fill them again the following day.

The stones were taken from stone fences that were of no use, and from the fields where they needed to be carted away. With the exception of one carpenter to put in doors and window frames and to keep the studding plumb, no skilled labor was employed.

With cheap labor and with cheaper materials a large building was constructed at a very modest cost, the average being 10 cents a cubic foot for the walls, which were made sixteen inches thick.

For houses, where these cheap materials may be readily obtained, concrete construction is desirable. By making an air chamber an inch wide in the middle of the walls the house will be cool in summer and warm in winter.

Other buildings may be put up of these materials—stables, poultry houses and greenhouses—and they will be practically indestructible and in little danger from fire.

There is no more beautiful effect to be obtained in buildings than that of a complete covering of them by the *Ampelopsis veitchii*, which it is possible to have upon concrete walls, particularly when they are left with a rough finish.

This vine may not prove to be quite hardy in some very cold regions. In that case a few iron spikes may be driven in the walls while they are somewhat soft and the American ivy or Virginia creeper may be planted, which will make a beautiful covering. By tying a few main branches to the spikes they will be strongly supported and not blown off by heavy winds. The tendrils of the American ivy do not cling as strongly and firmly as the *veitchii*, and thus it requires some extra support.

The brilliant autumn coloring of the foliage of these vines far exceeds in beauty all architectural adornment or colors obtained from paints.

In locating barns or stables they should be placed in a background at a convenient distance, with the least prominence possible given to them.

Basements should be avoided for stables for horses and cows. Such rooms cannot be so well lighted; neither is the air so dry. There will be greater danger from pneumonia and tuberculosis under such conditions. In building, basements are economical, as the room is obtained without extra cost for covering, and they furnish an excellent place for the storage of implements and vehicles.

Proper ventilation is one of the most important conditions to be obtained in stables. It is of even greater importance than warmth, for impure air is productive of endless troubles with animals kept much of the time in close confinement.

Because of defective ventilation many of the finest stables, supplied with costly fittings and elaborate finish, are responsible for the spread of tuberculosis to a far greater extent than exposure to cold or inclement weather.

Overhead ventilation so frequently provided is incorrect in principle. It takes the warm air out of stables, and the gases and impurities of the air, being heavier, settle to the lower portions of the room, and animals in lying down inhale these impurities. Hence the air should be drawn from the bottom rather than from the top of the room in stables.

For cows as much sunlight as possible should be admitted to the stable. Few microbes can long exist in the rays of the sun. Hence the importance and value of upper sashes in the construction of stables that will admit as much sunshine as possible.

Many seek country life for its possibilities in health giving, but health sometimes is undermined through the milk of cows that have become infected with disease from enforced breathing of impure air in stables, frequently of costly finish but seriously defective from want of proper ventilation.

In the construction of country houses sanitary provisions should have special care and consideration. This requirement in cities has come to be regarded as of so much importance that the installation of plumbing pipes and appliances, the sewer connections and the provision for ventilation are subject to municipal rules and regulations and to official inspection.

In the country similar requirements do not exist and the owner of a house alone decides upon the plans. This he is not always qualified to do.

There are many vital and important problems to be met. How shall the drainage and plumbing best be arranged? How shall we dispose of water from the roofs? How shall a dry and healthful cellar be secured? Shall the drainage from the house go into a cesspool, and if so how shall it be arranged, and how far shall the cesspool be placed from the house to be unobjectionable?

How shall the water supply be obtained? If from a well, what can be the least possible distance between a well and a cesspool? Shall the house have an attic tank, or shall an outside tank tower be erected? What power shall be used for pumping water? What provisions shall be made to secure protection for the house, the stable or barn from fire?

How are country houses to be most effectively and economically heated? There is an increasing tendency to live in the country through the entire year, and the plans for ample heating should be most complete.

These are only a few of the many and very important problems that have to be met in country building, and the judgment, knowledge and experience of the best sanitary and other engineers should be had, that mistakes along these lines may be avoided.

Greenhouses should be located near to or adjoining the gardens, that time may be economized in the work of distributing plants and in their general care. Much time is lost and added expense is incurred when the houses are widely separated from the gardens.

Poultry buildings should be built upon the least valuable land, upon that which is dry. Stony, rough land is well suited to this purpose, for it is usually dry or naturally well drained. Upon such soil poultry diseases are less liable to occur.

Here again good ventilation is highly essential. Fancy poultry buildings, with expensive finishings, generally result in poor outcome from the fowls, which thrive far better when they have free range.

Chickens confined to buildings with only limited space in small, divided and subdivided yards, soon contract lazy habits, will remain in their luxurious quarters and become inactive. Then disease is apt to overtake them and eggs for the family have to be sent out from the city.

In the plans for a country home a storage building for garden products will be found to be of special value. When vegetables are taken out of the ground much of their freshness and fine flavor is lost through drying and wilting.

A storage room may be constructed of double concrete walls, and if built partly underground it affords a protection against both heat and frost. A room fifteen by twenty feet and eight feet deep would accommodate a large quantity of supplies.

Just before the ground freezes and the winter makes it impossible to get vegetables longer from the garden, the potatoes, carrots, beets, onions, parsnips, salsify, celery, and other vegetables for winter use may here be stored and enjoyed in their finest quality by continuing the summer conditions with storage in the soil. Soil would be moved from the garden into the winter storeroom, in which the vegetables should again be planted or covered.

A potato is never so excellent as when taken fresh from the soil, and this is true of all vegetables. The choicest and most delicate rhubarb is that grown in the winter in a storage room of this kind at a low temperature and in total darkness.

With this method of winter storage, with soil covering, the luxury of fresh vegetables with their finest flavors preserved may be enjoyed to a degree not known until tried. If the storeroom could be built in connection with the ice house, so that cool air could be carried into it, apples and other fruits could be kept in their greatest perfection over a long period.

In no part of the development of a country house may greater satisfaction be obtained than in giving ample study to the plans for buildings. They should be included in the general scheme, located with a view to the purposes for which they are to be used and in harmony with the general development of the place.

All of the conveniences and comforts desirable in buildings may be secured at the least cost if they are thoroughly thought and worked out at the initial point—before the work of construction is begun. To attempt to obtain these by making changes in plans after construction is finished is unsatisfactory as well as much more costly.

GEORGE T. POWELL.

Stirring Battles With Trout, Bass, Salmon

Anglers Busy in the Woods—A Demonstration of the Fly Fisher's Art—Some Great Salmon Catching—Black Bass the Coming Game Fish of the Adirondacks.

QUEBEC, July 1.—Some of the best trout fishing reported from this part of Canada for several seasons has been enjoyed at Lake Edward, 113 miles north of Quebec, during the last two or three weeks. The big trout which hide in the depths of this beautiful body of water have afforded splendid sport to as ingenious a body of American anglers and native guides as ever whipped its surface.

There is never any difficulty in taking a heavy creel of big fish out of Lake Edward by trolling, but this is not a sportsmanlike enough occupation for many of the accomplished anglers who have lately camped by the margin of its waters, and therefore odd baits have been brought into successful play this year with surprisingly good results.

A persistent fly fisher whose gossamer line and artificial midges deftly cast and tantalizingly skittered over the surface of the water for the greater part of a day failed to secure a rise was made the butt for a lot of goodnatured ridicule because he had refused to accept the story that the trout of Lake Edward would not rise to the artificial fly. As the sun was already sinking in the west, he had no difficulty in finding a taker for his bet of a champagne supper that he would yet land at least half a dozen trout, weighing half a pound apiece and upward, before finishing up his day's sport and that he would take them with the artificial fly, too.

During the hour of twilight, out beyond a long reach of precipitous rock, the angler had a few cautious rises and succeeded in hooking and creeling two little fish not much better than fingerlings. And still he only smiled at the banterings of the friends who were watching him from the shore.

More than an hour after the sun had finally disappeared for the day, and when the shadows of rocks and trees had grown quite dark upon the lake, the angler directed his guide to paddle him quietly to the opposite shore, where the shadows were the blackest and the overhanging trees were most plentiful. Then came the fascination of some really interesting as well as really excellent sport.

As the guide softly paddled him along in the shadows of the overhanging trees the fisherman kept a careful watch upon the bright water beyond. A fluttering moth which his eye had been carefully following suddenly disappeared beneath the surface of the lake in the heart of a noisy disturbance of the water, within a constantly increasing circle.

A moment or two later a large Parmachenee Belle at the end of a stout cast fell lightly just beyond the spot where the natural moth had disappeared. There was an almost instant splash, followed by the screeching of the reel. There was no need to strike, no time, in fact, to do so, before the trout which had been so artfully seduced had closed its big jaws upon the gay deceit and dashed off in terror upon feeling itself impaled.

The steel still held and the frenzied fish struggled long and fiercely to be free. It swam round and round in circles, often running entirely under the canoe. Then it came to the surface and broke water, twice leaping out of it in its efforts to shake out the hook.

As the angler gave the trout the butt the fish belabored the surface of the water until it was almost beaten into foam. It was not until it had been nearly ten minutes hooked that the fish was safely taken into the net and lifted aboard the canoe, for caution was necessary in the dark, lest the rim of the net should strike the line and give the trout its freedom. It was a beautiful fish, weighing nearly three pounds.

No more moths could be seen for a while, but the practised eye of the angler soon discerned a long V-shaped wake on the bosom of the lake and realized that another big trout was on the move. After half a dozen casts a good fish was struck, and proved when killed to be only a pound lighter than the first.

It is interesting to note that the fisherman did not do very much casting in a doubtful, uncertain or experimental kind of way. He appeared to stalk his fish and to refrain from the exercise of problematical energy in whipping the water where no signs of them were to be seen.

It grew so dark that one or two good rises were missed and the fly which had already killed five good fish was exchanged for a cast of two flies, a small coachman and a dusty miller tied upon double salmon hooks. The soft light of the newly risen moon cast its shadows upon the water before many casts had been made with the new lures.

A small trout, some half a pound in weight, leaped clean out of the water upon the salmon fly, bearing the lure deep down with it. It was several minutes before the fisherman could get another view of his trout. Despite the fact that it was impaled upon a large double hook it kept the casting line well down below the surface of the lake.

It was more than the angler could do for several minutes to lift the fish. Then the reason became plain. The upper fly had been taken after the other, and by an enormous fish that looked as if at least half a yard long.

It made a terrific splash and plunge as it was lifted to the surface of the water, and that was the last that was seen of it. The gut to which the coachman was tied was unable to stand the strain and had parted in the struggle, almost before the angler could realize how large a fish he had struck and how necessary it was to give it more line.

In camp that night, after the fisherman had fought the battle of the early dark hours over again, he enlightened his companions as to the delights and the tricks of night fishing.

"Why, after the sun goes down," he said, "and the shadows creep over the water, there slink out from under stumps and overhanging foliage enormous trout that never stir by day. Time and again your most bewitching casts have sent palmers, midges, and spinners dancing past the very noses of these ancient fish, yet never caused them to blink one sleepless eye or move a fin.

"But when darkness settles down on the water they slip from their lairs like prowling beasts and begin their nocturnal chase. Fearlessly now they course up and down the pools, leaving behind them great sullen wakes where they move near the surface in the hunt. Not a moth can flutter along upon the water but quick jaws will stop its struggles in an instant.

"Many a night have I fished in the Adirondacks, and I tell you it's a fascinating sport. But the best thing for this work is live bait. Young mice are fine, but hard to get; big worms are fair, and minnows are exceedingly good. The small ones about two inches long are best.

"I wish you could watch an old guide of mine fish once. It is worth more than all the books ever written to see him hook and land a big trout."

"Sometimes, when a very coy fish is to be fooled, he will hook on a grasshopper, and set the insect on a bit of bark or a chip, and let him float down to where the cute chap lies. All at once there is a flash, a circle of foam, and that grasshopper has left the chip, while a monster trout is dashing down stream with a strange pain in his jaw. He is never at a loss for a device to tempt and deceive a knowing trout.

"We fly-fishermen are too apt to regard our books of gay feathers as the sole armament needed. If trout refuse one fly we try another, and when the list is exhausted we are often without resources.

"Did we but think of it, one of the yellow beetles on the old willow that overhangs the pool might have won a glorious fish; a cricket from under an overturned stone might tempt a mottled giant from the shadowed creek and often a bit of snowy belly of one of the small catfish or chubs one is bothered with arranged daintily on the hook and skilfully skittered down a long ripple, will lead to a mighty tussle.

"One of the small green frogs—not the brown and yellow mottled sort—hooked lightly through the skin of one thigh makes an irresistible bait in some weathers, though in placing it upon the hook it is well to bear in mind the quaintly kind device of old Izaak Walton, to use him as though you loved him, that is, harm him as little as you may possibly, that he may live the longer.

"The frog so treated is hard lived, and durable too, and will swim and kick about for a couple of hours, unless sooner attacked. When such a bait as this is taken by a trout, it is not desirable to strike at once, as time must be given the fish to swallow the frog, before the angler can hope to drive the hook into any part of it, or to avoid withdrawing both bait and hook from the fish's mouth."

An old angler who has fished much in the Saranac country, and who is still at Lake Edward, is a great believer in bumblebees as bait for trout. Pretty hot bait to handle, one is at first inclined to think. But this is not necessarily the case.

He relates that one of his guides has his cabin covered with morning glories, and that any sunny day a hundred bees may be seen flitting in and out of the bell shaped flowers. He seizes a flower in which a bee is working a way down toward the center and closes it by gathering together the outer rim.

Paying no attention to the angry buzzing inside, he sticks the blossom, small end first, into the hole in the cover of his perforated bait box. The box has a double top. The upper one turns on the lower so that only when the two openings come together can anything get in or out.

Sliding the top lid till the crescent of the hole begins to show, he inserts the tip of the flower, and by slowly pushing it in he manages never to leave an opening for the escape of the other captives. When the flower is thrust clear in up to the closed part, he turns the lid and chops the flower in two. It works on the cigar clipper plan.

He carries a small pair of pincers covered with cotton batting, and with these he lifts out his prisoners when he wants to use them. Opening the box only enough to let the head of one bee protrude he seizes this with the pincers and lightly runs the hook through the creature's back. Then he has a cast that is a killing one and that has landed some of the biggest trout captured in the northern woods.

Still by far the greater part of the big trout secured in Lake Edward are killed on trolling lines, and quite a number of them exceed six pounds in weight. Fly-fishing by night and odd baits for the wily fish that flies will not tempt at any time are likely, however, to grow in popular favor there, now that it has been clearly demonstrated that the big trout may be seduced in so many more or less artistic fashions.

Record Catch of Salmon on the St. Lawrence

LACHINE, Canada, July 1.—Eight hundred miles traveled; eight salmon—combined weight, 168 pounds—forty large trout and one good sized muskrat caught; three expensive rods smashed—this is the record established by an angler just returned from his salmon seeking trip, down the north shore of the St. Lawrence.

He hooked his first fish in a pool where several fine salmon were lying about and was bothered by the stiffness of the reel. Perhaps matters would have righted themselves before many minutes had gone by had not another big fish suddenly thrown itself out of the water and struck right across the line just when the strain on the tackle was hardest.

The heavy, two handed English made rod snapped right across just below the second ferrule. But the salmon did not get away. It had a fatal moment of indecision at the lower edge of the pool and the expert guide gaffed him on the instant.

The spare rod was at the camp two miles away, and as the sun was declining a fairly heavy, greenheart trout rod was set up and a small pool near by fished for trout. The trout were biting well, and two of them were often taken at a time. As these weighed two pounds apiece on the average they made good play for the lighter tackle.

One rise, at last, appeared to be that of a much heavier, stronger fish, and when the angler endeavored to force the fighting he was surprised at the resistance offered. The guide called out "Saumon! Saumon!" but his employer almost laughed at the notion of a salmon taking the fly in the pool which had been so greatly disturbed by the trout fishing.

An angry pull and a leap out of the water revealed a silvery side, and the next moment the halfbreed had plunged the gaff into a handsome twelve pound fresh run salmon. Both flies had become attached to the fish as he rose, one in the upper lip, the other around his body, which accounted for his being taken so easily.

A couple more trout were taken, and then as a small one was coming in at the end of the cast, the other fly, the dipper, was sucked in and a very large salmon made a succession of jumps across the pool, and would have gone off down stream, but for the presence of mind of the guide, who hurled stones into the water before him, and called to the other guide to head him off.

The fish sulked for a couple of anxious minutes and then made a dash for a little side exit close to the bank where the water was only a few inches deep. The guide jumped after him, and, slipping, fell right atop of the fish, which he secured by throwing his arms around its body, until his companion assisted him to rise with his prey hugged closely to his breast.

The fisherman ought to have been satisfied with his sport, but he was anxious to try an experiment. One of the men was sent to camp to prepare supper, and a white miller was exchanged for the flies on the cast, with a tiny metal silvered spoon before it. The trout took after this greedily in the darkness which had now set in—indeed fought for the privilege.

Some fierce old male salmon must have been passing just then, for there was a sudden dead stop of the bait, as though it had struck a sodden log. Then a great shining salmon gleamed through the night a dozen times in succession. The last leap was one too many for the trout tackle, there was a crack, an immediate easing of the strain upon the angler's arms, and the big chap was on his way back to the sea to be cured of a sore jaw. Two joints of the rod were snapped, and the double gut leader was broken at the first knot past the line.

That ended the fishing for that night. But the angler was up next morning before sunrise and at work with the spare rod at a large pool near the camp. When he began his guide could not distinguish objects at the bottom clearly enough to say whether there were any fish in it.

But at the first cast, with a nondescript home made fly with a yellow body, woodcock hackle and thin flamingo streamers, there was a leap at it, and at the next a good size fish made off with it. This was an exceedingly difficult one to handle. He gave not a moment's rest, but raced backward and forward, up and down the pool, until he seemed to be tired out. Just as he came to the surface near the guide he caught sight of the enemy with the gaff, and leaping over a little belt of stones sailed away down the rapids.

By some curious chance, however, he jumped into a little deep hole under a bank, among the roots of a tree, and there remained until the guide ran up, and letting in the gaff at a venture, for nothing could be seen, got a firm hold of him and dragged him out. This was a twenty-six pounder, and the sea lice were thick upon his gills, showing that he had only just left the salt water.

There were three other good pools near by, and before breakfast was cooked, at 6 o'clock, the man had hooked six and captured four others, all large salmon. While he was taking his morning meal the guide's mate and the lad who tended camp tried their luck, and brought to net an old warrior, whose hooked snout and dark stained body showed that he had been a long time away from the sea, and whose attenuated carcass was useless for food. He was not badly hurt and was returned to the water.

After a rest and a smoke the angler sallied forth to see if his amazing good luck was to continue. Just as he reached the pool he meant to try, a large muskrat appeared crossing the river, and out of mischief the fisherman made a throw at it with his fly. It chanced that the sharp hook caught on to the rat, whose efforts to break away were titanic compared with anything the fisherman had ever seen before.

The cast was very stout and the line of the best material, or the struggle would have been short. The creature dived, twisted and smashed about generally for several minutes, the efforts of the angler being directed toward keeping the rat away from the banks. He was apparently mastered at last, and with shortened line he was being dragged toward the guide, when with a lightning like turn he sprang towards the angler, who forgot to give slack in time, and smash went the rod in the middle of the second joint.

That ended the salmon fishing. The muskrat was captured and skinned as a trophy. A pretty rickety rod was made up, with which trout were caught on the way down the river. By nightfall the phenomenally lucky fisherman was on his way home again with what is probably a record bag, though with badly damaged tackle.

The Small Mouthed Black Bass the Coming Game Fish in the Adirondacks

SARANAC LAKE, N. Y., July 1.—The small mouthed black bass is regarded as the coming game fish for anglers in a considerable number of lakes and ponds in the North Woods. The season opened on June 15. The antics of the fish thereafter convinced sportsmen that there were more fish of this variety here than they had supposed.

The small mouthed black bass find in Adirondack waters conditions favorable to their propagation. Their tremendous increase in the last three or four years may be accounted for by the fact that in the large bodies of water in the Adirondack Park they find a wide range and abundant pasturage, and extensive shoals and bars for breeding.

They favor clear water and gravel or rock bottom, hibernating among massed boulders and propagating on the beds of gravel. It was natural for them to be common in the Great Lakes and the St. Lawrence River.

The building of the Erie Canal in 1825 brought them from Lake Erie to the Hudson River and to the waterways connected with the canal. Beginning with Saratoga Lake, which became a central distributing point, the fish spread well over the northeastern part of the State.

From Saratoga Lake they were conveyed to Effner Lake, which has an outlet into the Sacandaga River, and they ran down the Sacandaga to the Hudson below Luzerne and met their brethren at Troy. The refuse from paper mills there destroyed the bass, but the restocking of small streams and ponds became a craze, in which the Black River Canal, which meets the Erie at Rome, played an important part.

It was at the suggestion of Gov. Seymour that black bass were placed in the waters of Racquette Lake. Sixty adult fish were deposited there in January, 1872, and they spread into Big Forked, Little Forked, Sagamore Lake, now within the preserve of Alfred Gwynne Vanderbilt; Utowana and Blue Mountain lakes, the last of which at one time enjoyed the reputation of having the largest lake trout of any waters of the interior of the State.

A story of border spite is told regarding the presence of small mouthed black bass, the inveterate enemy of the trout, in the waters of the Fulton Chain of Lakes. Some thirty years ago Alvah Dunning, a famous hermit, poacher and woodsman, now dead, asked the woodsman at Old Forge, who were expecting a consignment of trout fry and fingerlings, for some trout for Eighth Lake, where he had a camp and where he reigned supreme. They replied that the trout were all allotted.

"I'll give ye fish a-plenty," exclaimed Dunning in anger at the refusal.

Dunning obtained black bass by the dozen from time to time and carried them in pails across the carry from Racquette Lake to the Brown's Tract Inlet, where they thrived, and now their progeny run through the waters of the chain. Especially are they abundant in Fourth Lake.

While black bass could also have run up the Black River to its junction with Moose River and thence to the Fulton Chain of Lakes or Big Moose Lake, it would seem that they did not follow this channel, as bass were not known in the Fulton Chain until after Dunning's threat; nor are there any black bass in the waters of Big Moose Lake and Little Moose Lake, which belong to the same system.

The largest small mouthed black bass ever taken from any water is believed to have come from Glen Lake, Warren county. It weighed 13 pounds and was killed with a spear. The stock from which this fish had its growth was thirteen small bass which were taken from Lake George in a bait basket.

Round Pond, in Warren county, is another famous place for bass. Nathaniel Packer of Glens Falls with rod and line took a bass that weighed 10 pounds.

In the sifting of bass through waters of the Adirondacks the stocking of Schroon Lake contributed to Paradox and Brant lakes. Since 1873 the State has distributed bass in the Oswegatchie River, Hudson River, Schroon Lake, Paradox Lake, Fourth Bisby Lake, West Canada Creek, Otter Pond, Franklin county; Big Tupper Lake, Lake Bonaparte, Lewis county; Honnedaga Lake, Oneida county; Glen Lake, Luzerne Lake, Warren county, and Trout Lake, St. Lawrence county, and at this time some of the waters of every county in the Adirondacks contain black bass.

Long Lake of the Raquette River chain and Big Tupper Lake, fifteen miles below on the same river, are notable among the fine bass lakes of the North Woods. An angler has been known to get upward of twenty-five black bass in a single day in the waters of Long Lake. In weight they run as heavy as 4 pounds.

Associated with the kind of bait that a black bass will take is a story of Sam Drake, a quaint all round sportsman, who is credited with the origin of the now universally used kidney shaped spoon. He was an inveterate angler even into the advanced years of his life.

There was a time when he approached very near death's door and friends suggested that they call a clergyman. In the course of his remarks the minister inquired:

"Mr. Drake, if you had your life to live over again, would you do differently?"

"I think I would," said Sam, thoughtfully.

"In what respect?"

"W-e-l-l," drawled the angler. "I think I would discard live bait entirely."

While this was the conclusion of a lifetime of studying the best methods of filling his creel, it is the general theory that the fish of the inland lakes and streams, particularly black bass, are more readily captured by live than by artificial bait. Seth Green asserted that the most killing bait for black bass, after they had left the shallows, was a troll of a couple of flies and a minnow impaled upon a gang of small hooks, by a twist of the tail, so as to give the bait a zigzag motion in the water. This bait, sometimes omitting the flies, was his favorite lure for angling for lake trout.

Another angler who has practised with all lures decides that, day in and day out, not only the largest bass, but the greatest numbers are to be had with a single good lively, fat worm so fastened as not to kill it, but to give it play. The worm must be alive, however. A bass has to be very hungry to take a motionless bait.

While he is a capricious feeder the black bass is not a fish eater. He will eat minnows, but they are not his chief diet, like the crawfish. The dobson (hellgrammite) is not a common food in Adirondack waters, and at first the bass are shy of it, scarcely touching it, but once they taste it they find that the dobson, like the darky's possum, is mighty good eatin'.

The Red Ibis is perhaps the most killing fly that one can use for trout or bass in the waters of the North Woods.

The black bass has the trout trait in that he does not like roily or brackish water, and as the season progresses he works out gradually into deeper water, until by November he is found forty feet below the surface. Then the pleasure of taking him is somewhat lessened as compared with fly fishing or bait casting inshore, where the lure is taken the instant it strikes the water.

For a brief period in the spring, say from twelve to eighteen days after the bass leave their nests at the spawning bed, they are ravenous and will take anything that looks like food, and they are very indifferent as to the feeding time; but having made up for lost time they become dainty epicures and return to their most natural foods.

They feed early in the morning and at sundown upon the substance furnished in the waters they inhabit, generally shiners or minnows in the morning and flies or crayfish in the evening. But of angleworms black bass never get a surfeit, as they do of minnows, flies or crayfish.

The usual fault in angling for black bass is in striking too soon. Wait until you are certain he has the bait far enough in his mouth to barb when he is struck.

In still fishing from a boat, find the depth of the water, then fish a foot and a half from the bottom, with a light sinker four feet or thereabouts above the hook. If trolling, drop the sinker well down, for unless very hungry they will not come to the surface for your phantom minnow, spoon or live bait.

Nature Study on a New Plan

It Is Based on the Idea of Making Friends With Bird and Beast—Experiments With Butterflies. :: ::

The naturalist quietly called the attention of his companion to a red eyed vireo as it flitted to its hidden nest among the low reaching branches of the maple under whose shade they sat close to the shore of Manhasset Bay one recent Sunday afternoon.

Then he quickly cut and trimmed a long switch, thrust a pin through the end, and upon the pin secured a tiny insect captured in the grass. Very slowly and patiently he raised the switch until the pin point was close to the bill of the little bird. The tidbit was accepted after a momentary questioning glance.

A soft little beetle, with a red thorax and black wing cases, was next offered. The vireo reached for this as the switch approached, but tasted it before eating the beetle. It continued a tasting motion with its bill, without taking the insect from the pin, until a profuse white froth came from its throat. Then the bird settled back in the nest in a way that meant:

"No, thank you!"

The naturalist examined the beetle. He found it to be one of those insects protected by an atrocious odor.

The next proffer to the vireo was acceptable, a black ant. A mosquito was also taken, but a little grasshopper was rejected.

The bird showed quick appreciation of the naturalist's doings and watched the proceedings with obvious and expectant interest. The little incident seemed to explain the success attained by animal trainers, and suggested that man's speechless associates on this earth are much more quick to learn than man in general has been ready to believe.

"Before long we could get the bird to come to us for the insects when we called," remarked the naturalist. "Yes, I have done it."

The special purpose of the experiment with the vireo was to give a practical demonstration of the new methods of nature study. These methods were recently referred to in THE SUN as "a new development in nature science, vastly more fascinating and sympathetic than the older, though necessary, shotgun and stuffed skin method."

By following the new methods a small number of workers have attained some unique results, in the way of getting closer to the sympathies and the minds of creatures whose speech is different from the languages of man. The beginnings of natural history dealt with the bodily forms, the structural, anatomical or histological products of animate action. Then came the studies guided by the imperfectly realized ideal of the St. Louis Exposition, "Processes rather than products," studies such as the newer biology.

The older work involved the shotgun and rifle. The new tendency directs attention to living animals in their natural homes, collecting data on which later may be based generalizations regarding the phenomena of their consciousness, not yet in the progress of science to be read in structure or protoplasmic tissue.

It tends toward the discovery of a more effective medium of communication between man and his varied terrestrial relatives, to the perception of closer bonds of sympathy and mutual appreciation, and to fuller recognition that human skulls do not hold all the brains on earth. This study may be expected to remove some of the assumed distinctions between the minds of animals and man; also, perhaps, to emphasize new differences. The development may hope even to formulate something like an animal sociology, throwing perhaps collateral light on human affairs.

A broad study of the significance of animal cries bears on the beginnings of spoken language and the origin of man as the distinctively linguistic and therefore sociological animal. Work like that of Lubbock on the doings of the ant, much more emphatically a socialist than man has yet become, may be classed with studies which a little later in scientific progress may come to be grouped as representatives of the new development.

Whatever may or may not be granted concerning the positiveness of results attained, the effort to collect phonographic records of monkey cries among their native trees is another isolated suggestion of the new tendency to learn deeper facts by methods obviously much more difficult than merely shooting an animal at easy range and preserving its skin.

The new nature study requires the exercise of unlimited sympathetic patience. Indeed, observers say that the animal mind is much like the child mind. Animal study along the lines of the new development may be regarded as collateral to child study, itself one of the new sciences.

It is the practise of these observers to put themselves into relations of familiarity with a bird or a squirrel or a coyote or a bear, very much as a nurse puts herself on the infant's plane in communicating with it. Equipped with a natural gift for recognizing each individual bird note or animal cry and for imitating a large proportion of them the observer utters the sounds which have meaning to them.

The parallel between child treatment and animal treatment is further observable in the quick results which come from appeal to the gastronomic pleasures of either the animal or the child. A fly for a warbler, a cherry for a robin and a chocolate drop for a little girl produce like effects; friendly relations are established between the giver and the recipient. Both the child and the animal enjoy attention and a fond caress.

"As a philosophical surmise," said the naturalist who fed the vireo, "it perhaps is not far wrong to say that we as human beings like these things because our remote ancestors learned to like them as animals, and the naturalist in studying the animal mind is but studying an earlier stage in the development of human consciousness, a stage through which every individual human mind must pass in its progress from infancy to full maturity."

A Butterfly Farm in a City Flat

To create butterflies of new and gorgeous colors in a city flat is the hobby pursued by Dr. Otto Seifert at his home in East Eighty-fourth street.

It was in his boyhood home in Hanover, Germany, that he first became interested in butterflies. His father didn't want him to play in the street, so he sent him to the woods and fields. And the lad speedily became a student and collector of butterflies. He came to America in 1878 and was in the drug business for thirty-five years, but continued his collecting and his experiments with butterflies.

Now he has butterflies by thousands and is raising more all the time. Caterpillars are coming to him from friends in all parts of the world. They restrict him in his movements.

"I wanted to go to Europe this year," he said the other day, "but I have now so many caterpillars that I could not leave them."

Dr. Seifert is now making experiments of special interest. By means of the application of the extremes of heat and cold to the caterpillars, butterflies of more gorgeous or more sober colors, as the experiment may result, are being produced, and some entirely new and more picturesque species may yet be forthcoming from the freezing out or the incubating process which Dr. Seifert employs.

In doing this he is following out the discovery first made by George Dorfmeister, a Bavarian schoolteacher, and since followed up by August Weismann, Dr. Standfuss in Zurich and W. H. Edwards in this country. Dorfmeister discovered that by putting the pupæ of the butterflies belonging to the family of Arctiidæ away in the cold of his cellar for a certain length of time he secured a modification in form and color which made the resulting butterflies resemble a butterfly of a more northern clime.

Dr. Seifert has taken a butterfly common from Labrador to the Cape of Good Hope, and by the icebox or the incubator method he has achieved specimens which have an individuality of their own. He has taken butterflies familiarly known in the fields around New York and by subjecting the chrysalids to extremes of heat and cold has obtained forms that would properly belong to both Canada and Florida.

The pupæ from which it is desired to secure a more northern form of butterfly is put as soon as its shell is hard into the refrigerator or icebox for two hours before it is consigned to the freezer for its long sleep, to accustom it to the freezing temperature. It is subjected to the same treatment when taken from the freezer before being exposed to a regular temperature.

Not only will the effects of extreme cold eliminate the brilliant eyes upon the wings of brilliant butterflies, such as for instance the common "Painted Lady," but it will also have an effect upon the shape of the wings of the insect, the wings most approaching the triangular in shape appearing in the modified form as more forked.

The females in general are far less inclined than the males to yield in regard to color and design to the stimulating influences of temperature. While heat and cold usually act as stimulants in different degrees, in some cases almost the same modifications are obtained by extreme heat as by cold.

Extreme heat seems to retard development just as cold does. Freshly formed pupæ of the *Arctia arge* exposed to a temperature of about 100 Fahrenheit for 100 hours gave after six days an extreme southern form of this butterfly. In general the effect of the cold is found to produce northern forms with more sober coloring, while the heat brings out gorgeous colors even more brilliantly.

The apparatus employed in these transformations is exceedingly simple. It is an ordinary icebox, or freezer, where the chrysalis is kept so fast asleep that a little matter of temperature does not in the least trouble it, and it is prepared to assume the colors which it would assume in an extreme northern clime. From the freezer it is transferred to a pasteboard box in a living room until the butterfly appears.

The incubator, if such it may be called, is made from a square tin or sheet iron box. The oven of a gas stove would do. Lamps are placed beneath the box, and inside are a series of horizontal shelves, upon which the chrysalids are placed. The temperature has to be regulated carefully.

In cases in Dr. Seifert's flat are displayed his collections of butterflies and also the butterflies he has created. All the world is represented—butterflies from Tibet, rare and hard to get; butterflies from Japan, with mottled wings that in coloring resemble the Japanese tea boxes; immense steel blue butterflies from the Indies and Borneo; gorgeous flowerlike insects from South America and queer ones from Mexico.

One case is full of butterflies from Florida. Dr. Seifert went to that State to raise and experiment with butterflies, because he could not get here the food they needed. Caterpillars are fastidious and won't eat everything. Many of them will only eat one thing, and there is one tropical species that will only feed on the leaves of the passion flower.

Dr. Seifert has had many queer things to contend with in his pairing and rearing of butterflies. His care of his caterpillars alone is no sinecure. Each day of his life he has to make an excursion to get food for them.

One species will feed on nothing but the leaves of the witch hazel, while another will die if fed on anything but the twigs of the weeping willow. Some of them are very fond of dandelion leaves. So his shopping for caterpillar food often extends far beyond the limits of New York.

As an instance of the experimental nature of some of his work the doctor a few seasons ago found a rare green moth in The Bronx. From it he raised families for two seasons, but each season they died. Their food was investigated, and the third season the family grew to maturity. Dr. Seifert had been feeding them on the female blossoms of a certain conifer when they needed the male blossoms of the same tree.